

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Application of:
Dettinger et al.

Serial No.: 10/691,308

Filed: 10/22/03

For: CONTEXT SENSITIVE TERM
EXPANSION WITH MULTIPLE
LEVELS OF EXPANSION

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Confirmation No.: 6406

Group Art Unit: 2166

Examiner: Emeka Ebirim

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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Dear Sir:

May 29, 2007 /Randol W. Read, Reg. No. 43,876/
Date Randol W. Read

APPEAL BRIEF

Applicants submit this Appeal Brief to the Board of Patent Appeals and Interferences on appeal from the decision of the Examiner of Group Art Unit 2166 dated October 19, 2006, finally rejecting claims 1-4, 6-7, 9-11, 14-18, 20-23 and 26-30. The final rejection of claims 1-4, 6-7, 9-11, 14-18, 20-23 and 26-30 is appealed. This Appeal Brief is believed to be timely since it is electronically transmitted by the due date of May 29, 2007, as set by the filing of a Notice of Appeal on March 27, 2007. Please charge the fee of \$500.00 for filing this brief to Deposit Account No. 09-0465/ROC920030320US1.

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Real Party in Interest

The present application has been assigned to International Business Machines Corporation, Armonk, New York.

Related Appeals and Interferences

Applicant asserts that no other appeals or interferences are known to the Applicant, the Applicant's legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

Status of Claims

Claims 1-4, 6-7, 9-11, 14-18, 20-23 and 26-30 are pending in the application. Claims 1-30 were originally presented in the application. Claims 5, 8, 12-13, 19 and 24-25 have been canceled without prejudice. Claims 1-4, 6-7, 9-11, 14-18, 20-23 and 26-30 stand finally rejected as discussed below. The final rejections of claims 1-4, 6-7, 9-11, 14-18, 20-23 and 26-30 are appealed. The pending claims are shown in the attached Claims Appendix.

Status of Amendments

All claim amendments have been entered by the Examiner, including amendments to the claims proposed after the final rejection.

Summary of Claimed Subject Matter

Claimed embodiments include methods (see claims 1-4, 6, 7, 9-11, 14-16, and 28-30) and computer programs stored on computer readable storage media (see claims 17, 18) and computer systems (see claims 21-23, 26, 27) directed to context sensitive term expansion with multiple levels of expansion.

CLAIM 1 - INDEPENDENT

Claim 1 recites a method for context-sensitive searching of fields of a data repository using multiple levels of term expansion. See *Application*, Abstract, 1:15-17, 3:17-25. This method includes receiving, from a user, a query containing at least one condition for searching at least one field of the data repository. See *Application*, 13:1-8, Figures 2A-2C, 15:23-27. As claimed, the at least one condition includes at least one base search term. See *Application*, 13:6-8, 15:23-27, Figure 3A 302, 304 and 306. This method also includes obtaining one or more parameters associated with the base search term, wherein the one or more parameters associated with the base search term comprise a user-specified level of expansion. See *Application* 8:1-2, 9:1-10, 14:24-31, 15:1-10, Figure 2C, 15:26-30, Fig 3A, 308, 16:1-11, 16:15-24, 17:1-12. This method also includes obtaining, based at least in part on the user-specified level of expansion, one or more expanded search terms. See *Application*, 15:26-30, Figure 3A 310, 17:20-31, Figure 3B. This method also includes, prior to executing the query, modifying the query to contain one or more conditions based on the one or more expanded search terms. See *Application*, 17:14-18, Figure 3A 312, 314.

CLAIM 6 - INDEPENDENT

Claim 6 recites a method for searching fields of a data repository using multiple levels of term expansion. See *Application*, Abstract, 1:15-17, 3:27-32, 4:1-2. This method includes receiving, from a user, a query containing at least one condition for searching at least one field of the data repository. See *Application*, 13:1-8, Figures 2A-2C, 15:23-27. As claimed, the at least one condition includes at least one base search term. See *Application*, 13:6-8, 15:23-27, Figure 3A 302, 304 and 306. This method also includes

providing an interface allowing a user to specify a level of expansion associated with the base search term. See *Application* 8:1-2, 9:1-10, 15:1-10, Figure 2C, 19:3-29, Figure 5A-5C. This method also includes obtaining the level of expansion associated with the base search term. See *Application* 14:24-31, 15:26-30, Fig 3A, 308, 16:1-11, 16:15-24, 17:1-12. This method also includes obtaining, based on the base search term and the associated level of expansion, one or more expanded search terms. See *Application*, 15:26-30, Figure 3A 310, 17:20-31, Figure 3B. This method also includes prior to executing the query, modifying the query to contain one or more conditions including the one or more expanded search terms. See *Application*, 17:14-18, Figure 3A 312, 314.

CLAIM 11 – INDEPENDENT

Claim 11 recites a method for context-sensitive searching of fields of a data repository. See *Application*, Abstract, 1:15-17, 3:27-32, 4:4-10. This method includes receiving, from a user, a query containing at least one condition for searching at least one field of the data repository. See *Application*, 13:1-8, Figures 2A-2C, 15:23-27. As claimed, at least one condition includes at least one base search term. See *Application*, 13:6-8, 15:23-27, Figure 3A 302, 304 and 306. This method also includes obtaining, based one or more parameters associated with the base search term, one or more expanded search terms. See *Application*, 15:26-30, Figure 3A 310, 17:20-31, Figure 3B. This method also includes prior to executing the query, modifying the query to contain one or more conditions based on the one or more expanded search terms. See *Application*, 17:14-18, Figure 3A 312, 314. As claimed, the one or more parameters associated with the base search term comprise a name of the at least one field and different one or more expanded search terms are obtained for the at least one base search term depending on the name of the at least one field. See *Application* 8:1-2, 9:1-10, 14:24-31, 15:1-10, Figure 2C, 15:26-30, Fig 3A, 308, 16:1-11, 16:15-24, 17:1-12.

CLAIM 17 - INDEPENDENT

Claim 17 recites a computer-readable storage medium containing a program for searching fields of a data repository using multiple levels of term expansion. See

Application, Abstract, 1:15-17, 3:27-32, 4:12-20, 7:19. The program is configured for providing a first interface allowing a user to build a query containing at least one condition for searching at least one field of the data repository, wherein the at least one condition includes at least one base search term. See *Application* Figure 19:30-9, Figure 5A, 13:1-8, Figures 2A-2C, 15:23-27, 13:6-8, 15:23-27, Figure 3A 302, 304 and 306. The program is further configured for providing a second interface allowing the user to specify expanded search terms to be associated with the at least one base search term. See *Application*, 19:11-29, 20:1-15, Figures 5B-5C, 13:6-8, 15:23-27, Figure 3A 302, 304 and 306. The program is also configured for, prior to executing the query, modifying the query to contain one or more conditions including the one or more specified expanded search terms. See *Application*, 17:14-18, Figure 3A 312, 314. As claimed, the second interface allows a user to specify different sets of expanded search terms associated with different levels of expansion. See *Application* 19:23-29, 20:1-14, Figure 5B-5C

CLAIM 21 - INDEPENDENT

Claim 21 is directed to a data processing system. See *Application*, 4:22-29, 8:19-28, Figure 1, 100. The data processing system includes a collection of data. See *Application* 11:26-30, Figure 1, 154, and also includes at least one expanded term repository. See *Application* 8:30-31, 9:1-10, 12:5-14, 12:16-28, Figure 1, 158, 159. The data processing system also includes an executable component configured to receive a query containing at least one condition for searching the collection of data. See *Application* 13:10-15, Figure 1, 2A, 150, 13:1-8, Figures 2A-2C, 15:23-27, 13:6-8, 15:23-27, Figure 3A 302, 304 and 306. As claimed, the executable component is further configured to obtain, based on at least one base search term included in the at least one condition and at least one parameter indicative of a context of the query, one or more expanded search terms contained in the at least one expanded term repository. See *Application* 8:1-2, 9:1-10, 14:24-31, 15:1-10, Figure 2C, 15:26-30, Fig 3A, 308, 16:1-11, 16:15-24, 17:1-12, 15:26-30, Figure 3A 310, 17:20-31, Figure 3B. As claimed, the executable component is further configured to, prior to executing the query, modify the query to contain one or more conditions based on the one or more expanded search

terms, See *Application*, 17:14-18, Figure 3A 312, 314. As claimed, the at least one expanded term repository comprises a single repository containing different sets of expanded search terms associated with the same base term. See *Application*, 12:16-28

CLAIM 28 - INDEPENDENT

Claim 28 recites a method of searching fields of a data repository using dynamic term expansion. See *Application*, Abstract, 1:15-17. This method includes obtaining a query containing at least one condition for searching at least one field of the data repository. See *Application*, 13:1-8, Figures 2A-2C, 15:23-27. As claimed, the at least one condition includes at least one base search term. See *Application*, 13:6-8, 15:23-27, Figure 3A 302, 304 and 306. This method also includes identifying a set of expanded terms associated with the base search term. See *Application*, 15:26-30, Figure 3A 310, 17:20-31, Figure 3B. And also includes generating a pointer to the identified set of expanded search terms. See *Application*, 16:3-6, 21:1-14. This method also includes, prior to executing the query, modifying the query to contain one or more conditions based on one or more expanded search terms retrieved using the pointer. See *Application*, 17:14-18, Figure 3A 312, 314, 21:11-14.

Grounds of Rejection to be Reviewed on Appeal

1. Rejection of claims 1-4, 6-7, 9-11, 14-18, 20-23 and 26-30 under 35 U.S.C. 102(b) as being anticipated by *Wical* (U.S. Patent No. 5,940,821).

ARGUMENTS

***Wical* Does Not Anticipate Claims 1-4, 6-7, 9-11, 14-18, 20-23, or 26-30 under 35 U.S.C. § 102(b)**

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Applicants submit that *Wical* does not disclose a method for context-sensitive searching of fields of a data repository using multiple levels of term expansion that includes obtaining one or more parameters associated with the base search term. And in particular *Wical* does not disclose a method for context-sensitive searching, where the one or more parameters associated with the base search term comprise a user-specified level of expansion, as recited by claim 1. Similarly, *Wical* does not disclose a method for searching fields of a data repository using multiple levels of term expansion that includes providing an interface allowing a user to specify a level of expansion associated with the base search term, as recited by claim 6. Also similarly, *Wical* does not disclose a computer-readable storage medium containing a program for searching fields of a data repository using multiple levels of term expansion, where the program is configured for providing a second interface allowing the user to specify expanded search terms to be associated with the at least one base search term, where the second interface allows a user to specify different sets of expanded search terms associated with different levels of expansion, as recited by claim 17.

Claim 1

Wical describes a "knowledge base." As disclosed in *Wical*, the "knowledge base" provides information used to identify "topics" and "genres" that may be related to

a search term included in a word search. For example, *Wical* describes the “knowledge base” as follows:

The knowledge base reflects the context of certain terminology by associating terms with categories based on the use of the terms in documents. For the above example about wine making, the term “barrel fermented” may be associated with the category “wines.”

Wical, 4:54-58. Importantly, the relationships between terms, topics, and genres reflected in the “knowledge base” exist independently from any particular search request submitted by a user. Further, the “topics” or “categories” do not provide an “expanded set of search terms” used to search the fields of a data repository.

As disclosed by *Wical*, when a user submits a keyword, the “knowledge base” may be used to identify a set of topics related to the keyword, and documents within those topics. For example, *Wical*, Figure 10, cited by the Examiner, shows five categories identified using the “knowledge base” for the initial word search “internet.” However, nothing in the “knowledge base” is used to specify a varying “levels of term expansion,” as recited by claim 1. The Examiner suggests that *Wical*, 14:15-45, discloses obtaining one or more parameters associated with the base search term, wherein the one or more parameters associated with the base search term comprise a user-specified level of expansion, as recited by claim 1. See *Final Office Action*, p. 5. In fact, however, this passage provides a discussion of how a “query term” may be “mapped to categories in the knowledge base.” *Wical*, 14:5-17. Nowhere in this passage does *Wical* disclose a “user-specified level of expansion where one user-specified level would lead to one set of expanded search terms and another user-specified level would lead to a different set of search terms. Instead, the passage describes a directed graph maintained by the knowledge base used to identify different categories that may be related to a query term (based mostly on weighting values assigned to nodes of the directed graph).

Claim 6:

Similarly, regarding the step of providing an interface allowing a user to specify a level of expansion associated with the base search term recited by claim 6, the

Examiner suggests that *Wical* discloses this limitation at 13:50-57. The cited passage provides:

As discussed above, the factual knowledge base query processing retrieves documents, based on the user query, and displays a listing of the documents relative to a classification criteria (e.g., categories). FIG. 5 is a flow diagram illustrating one embodiment for factual knowledge base query processing. The input query is divided into distinct parts, and for each part, the query term processing 205 generates the different possible senses and forms as discussed above. This operation is shown in block 400 of FIG. 5.

See *Final Office Action*, p. 7. As can be seen, this passage discloses nothing more than a query is processed to retrieve documents, and that query results are presented as a “listing of documents relative to a classification criteria.” That is, query results are ordered by category. Clearly, nothing in this passage disclose the limitation of providing an interface allowing a user to specify a level of expansion associated with the base search term.

Claim 17

Also similarly, regarding the limitation recited by claim 17 of a computer program configured for providing an interface allowing the user to specify expanded search terms to be associated with the at least one base search term, where the second interface allows a user to specify different sets of expanded search terms associated with different levels of expansion, the Examiner suggests that *Wical* discloses this limitation at *Wical*, 14:38-55. In part, this passage provides

To expand up the classification hierarchy from node_A to node_B, the query term_A strength 20 is reduced 50% for each semantic distance point below 10. With a semantic distance weight of 8, the query term_A strength of 20 is reduced to a query term strength of 5. In an attempt to expand even further up the classification hierarchy, node_C is considered. However, the link between parent node_C and child node_B includes a marker; thus, node_C is not selected in the expanded query term set.

See *Final Office Action*, p. 10. This passage describes how the “knowledge base” may be traversed to identify categories related to a given term, based on a term “strength” and on a “semantic distance” between one category and another (reflected by nodes of a directed graph). In simpler terms, the passage teaches that some categories in the “knowledge base” may be more (or less) related to one another than other categories.

Candidly, nothing in this passage discloses anything related to providing an interface whatsoever; rather, quite clearly, the passage illustrates internal processing performed by the query system of *Wical* to identify categories of information related to a word search term by traversing the “knowledge base.”

The examiner also cites to *Wical*, Figure 14 regarding this limitation. By its own terms, *Wical* describes this Figure as “a high level block diagram of a general purpose computer system.” *Wical*, 4:16-18. Applicants submit that the, extremely generic illustration of a computer system having a processor, memory, storage device, and display, etc., utterly fails to disclose any portion of the claimed computer program configured to provide a first interface allowing a user to build a query containing at least one condition for searching at least one field of the data repository, where the at least one condition includes at least one base search term, and to provide a second interface allowing the user to specify expanded search terms to be associated with the at least one base search term.

Accordingly, based on the foregoing, Applicants submit that *Wical* does not anticipate claims 1-4, 6, 7, 9, 10, 17, 18, and 20. Therefore, Applicants respectfully request that this rejection be withdrawn.

Claim 11:

The Examiner refers to portions of *Wical*, 12:1-15, Figures 8A-8C, to reject claim 11. However, as the discussion above should make clear, the “knowledge base” discussed in *Wical* is used to identify categories of information that may be related to a search term by relating the different categories as nodes of a directed graph (having a “semantic distance” between nodes). See e.g., *Wical*, 12:1-25. Similarly, the figures cited by the Examiner merely illustrate a hierarchy of categories and sub-categories.

Applicants respectfully submit that this cited portion teaches how a search term may be used to identify related categories in the “knowledge base.” However, the cited portions do not teach how “different one or more expanded search terms are obtained for the at least one base search term depending on the name of the field,” as recited by claim 11. Accordingly, based on the foregoing, Applicants submit that *Wical* does not

anticipate claims 11 and 14-16. Therefore, Applicants respectfully request that this rejection be withdrawn

Claim 21:

Applicants submit that *Wical* does not disclose a data processing system, that includes, among other things, “an executable component configured to receive a query containing at least one condition for searching the collection of data ... and to obtain “based on at least one base search term included in the at least one condition and at least one parameter indicative of a context of the query, one or more expanded search terms,” as recited by claim 21. Regarding this limitation, the Examiner cites a disconnected sequence of passages from *Wical*,¹ all describing different aspects of the “knowledge base” and the query system used to identify categories related to search terms. However, none of these passages disclose a “parameter indicative of a context of the query,” as recited by claim 21. For example, *Wical*, Figure 2 illustrates a query input to a query processing module, and *Wical*, Figure 12 illustrates an alphabetical list of categories related to a keyword search of “President George Herbert Walker Bush.” Not surprisingly, the listed categories identified in the “knowledge base” include “tax rates” and “Iran Contra Affair.”

Completely absent from these figures, and the cited passages however, is a query that includes a “parameter indicative of a context of the query,” as recited by claim 21, all the query includes are keywords.

Furthermore, Applicants submit that *Wical* fails to teach “a single repository containing different sets of expanded search terms associated with the same base term,” as recited by claim 21. In support of the rejection, the Examiner refers to *Wical*, 14:25-37 and Figures 8A-8C. Nothing in these passages, or *Wical* generally, disclose a repository that stores “different sets of expanded search terms associated with the same base term.” Instead, as the discussion above should make clear, the “knowledge base” discussed in *Wical* is used to identify categories of information that may be related to a search term by relating the different categories as nodes of a directed graph (having a “semantic distance” between nodes). See e.g., *Wical*, 12:1-25. Similarly, the

¹ Including *Wical*, 2:45-55, 26:60-65, Figures 2, 12, 14:27-55, and 17: 62-65. *Final Office Action*, p. 12.

figures cited by the Examiner merely illustrate a hierarchy of categories and sub-categories.

Accordingly, based on the foregoing, Applicants submit that *Wical* does not anticipate claims 21-23, 26 and 27. Therefore, Applicants respectfully request that this rejection be withdrawn

Claim 28:

Applicants submit that *Wical* does not disclose a method of searching fields of a data repository using dynamic term expansion that includes generating a pointer to the identified set of expanded search terms, as recited by claim 28.

On this point, the Examiner suggests that the relationships between nodes of the “knowledge base” disclose this limitation. See *e.g.*, Final office action, p. 14, citing *Wical* Figure 6, 7, 14:27-55, and 11:42-44. However, the links between nodes of the “knowledge base” are not a pointer “to identify a set of expanded search terms” for a received query. *Wical* teaches that portions of the directed graph of the “knowledge base” may be traversed to identify categories and topics related to any given search term. That is, the “knowledge base” and the edges between nodes of a directed graph exist independently from of any query or search keyword. In contrast, claim 28 recites “generating a pointer to an identified set of expanded search terms.” As claimed, the pointer is generated to identify a specific “expanded set of search terms” relative to a specific query. The passages cited by the Examiner merely describe the general internal structure of the “knowledge base,” and how it may be used to identify relationships “categories,” “classifications,” and “topics.”

Accordingly, based on the foregoing, Applicants submit that *Wical* does not anticipate claims 28-30. Therefore, Applicants respectfully request that this rejection be withdrawn.

CONCLUSION

The Examiner errs in finding that claims 1-4, 6-7, 9-11, 14-18, 20-23 and 26-30 are anticipated by *Wical* under 35 U.S.C. § 102(b).

Withdrawal of the rejection and allowance of all claims is respectfully requested.

Respectfully submitted, and
S-signed pursuant to 37 CFR 1.4,

/Randol W. Read, Reg. No. 43,876/

Randol W. Read
Registration No. 43,876
Patterson & Sheridan, L.L.P.
3040 Post Oak Blvd. Suite 1500
Houston, TX 77056
Telephone: (713) 623-4844
Facsimile: (713) 623-4846
Attorney for Appellants

CLAIMS APPENDIX

1. (Previously Presented) A method for context-sensitive searching of fields of a data repository using multiple levels of term expansion, comprising:
 - receiving, from a user, a query containing at least one condition for searching at least one field of the data repository, wherein the at least one condition includes at least one base search term;
 - obtaining one or more parameters associated with the base search term, wherein the one or more parameters associated with the base search term comprise a user-specified level of expansion;
 - obtaining, based at least in part on the user-specified level of expansion, one or more expanded search terms; and
 - prior to executing the query, modifying the query to contain one or more conditions based on the one or more expanded search terms.
2. (Original) The method of claim 1, wherein the one or more parameters associated with the base search term comprise a name of the at least one field.
3. (Original) The method of claim 1, wherein the one or more parameters associated with the base search term comprise a name of a table containing the at least one field.
4. (Original) The method of claim 1, wherein different one or more expanded search terms are obtained for the at least one base search term depending on the name of the at least one field.
5. (Canceled)
6. (Previously Presented) A method for searching fields of a data repository using multiple levels of term expansion, comprising:
 - receiving, from a user, a query containing at least one condition for searching at least one field of the data repository, wherein the at least one condition includes at least one base search term;

providing an interface allowing a user to specify a level of expansion associated with the base search term;

obtaining the level of expansion associated with the base search term;

obtaining, based on the base search term and the associated level of expansion, one or more expanded search terms; and

prior to executing the query, modifying the query to contain one or more conditions including the one or more expanded search terms.

7. (Original) The method of claim 6, wherein the base search term corresponds to an instance data value of the at least one field.

8. (Canceled)

9. (Original) The method of claim 6, wherein obtaining one or more expanded search terms comprises selecting a set of expanded search terms from a plurality of sets of expanded search terms, each set corresponding to a different level of expansion.

10. (Original) The method of claim 9, wherein the number of expanded search terms in each set is dependent on the corresponding level of expansion.

11. (Previously Presented) A method for context-sensitive searching of fields of a data repository, comprising:

receiving, from a user, a query containing at least one condition for searching at least one field of the data repository, wherein the at least one condition includes at least one base search term;

obtaining, based one or more parameters associated with the base search term, one or more expanded search terms; and

prior to executing the query, modifying the query to contain one or more conditions based on the one or more expanded search terms,

wherein the one or more parameters associated with the base search term comprise a name of the at least one field and different one or more expanded search

terms are obtained for the at least one base search term depending on the name of the at least one field.

12-13. (Canceled)

14. (Original) The method of claim 11, wherein the one or more parameters associated with the base search term comprise a name of a table containing the at least one field.

15. (Original) The method of claim 11, wherein the one or more parameters associated with the base search term comprise a level of expansion.

16. (Original) The method of claim 15, wherein the level of expansion is dependent on one or more other ones of the one or more parameters.

17. (Previously Presented) A computer-readable storage medium containing a program for searching fields of a data repository using multiple levels of term expansion which, when executed, performs operations comprising:

providing a first interface allowing a user to build a query containing at least one condition for searching at least one field of the data repository, wherein the at least one condition includes at least one base search term;

providing a second interface allowing the user to specify expanded search terms to be associated with the at least one base search term; and

prior to executing the query, modifying the query to contain one or more conditions including the one or more specified expanded search terms,

wherein the second interface allows a user to specify different sets of expanded search terms associated with different levels of expansion.

18. (Previously Presented) The computer-readable storage medium of claim 17, wherein the second interface is accessible from the first interface.

19. (Canceled)

20. (Previously Presented) The computer-readable storage medium of claim 17, wherein the different levels of expansion are determined, at least in part, based on one or more credentials of the user.

21. (Previously Presented) A data processing system, comprising:
a collection of data;
at least one expanded term repository; and
an executable component configured to receive a query containing at least one condition for searching the collection of data, obtain, based on at least one base search term included in the at least one condition and at least one parameter indicative of a context of the query, one or more expanded search terms contained in the at least one expanded term repository, and prior to executing the query, modify the query to contain one or more conditions based on the one or more expanded search terms,
wherein the at least one expanded term repository comprises a single repository containing different sets of expanded search terms associated with the same base term.

22. (Previously Presented) The system of claim 21, wherein the collection of data is a relational database.

23. (Original) The system of claim 21, wherein the collection of data is a text document.

24-25. (Canceled)

26. (Original) The system of claim 21, wherein the at least one parameter indicative of a context of the query is indicative of a portion of the collection of data involved in the at least one condition.

27. (Original) The system of claim 26, wherein the at least one parameter indicative of a context of the query comprises a name of a table containing the at least one field.

28. (Original) A method of searching fields of a data repository using dynamic term expansion, comprising:

obtaining a query containing at least one condition for searching at least one field of the data repository, wherein the at least one condition includes at least one base search term;

identifying a set of expanded terms associated with the base search term;

generating a pointer to the identified set of expanded search terms; and

prior to executing the query, modifying the query to contain one or more conditions based on one or more expanded search terms retrieved using the pointer.

29. (Original) The method of claim 28, further comprising modifying the identified set of expanded search terms after generating the pointer.

30. (Original) The method of claim 28, wherein the pointer comprises a directory path to a database.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.